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# THE DUFEEK FILE

By Timothy Takaro, M.D.

THIS IMAGE: GLEN ALLISON; ALL HISTORICAL IMAGES: COURTESY OF THE AUTHOR



Present-day Prague, pictured, looks much as it did in 1962, when a visiting DMS alumnus performed the first pacemaker implantation behind the Iron Curtain.

The Cold War—when Communism was a constant specter and few Americans were allowed behind the Iron Curtain—now seems long ago and far away. I was recently reminded of the divisions and fears of that era when I came across a file of correspondence more than 40 years old. The cache of letters, cables, and news clippings stirred up memories of an unusual experience I had back then—and of the fact that human connections can be forged even across seemingly impenetrable barriers.

It was the spring of 1962. Just over a year earlier, Russian leader Nikita Khrushchev had disrupted a session of the United Nations by banging his shoe on a desk. The Berlin Wall had been up for eight months, sealing off East Berliners from all contact with the West. The Cuban Missile Crisis was nearing its dénouement.

Yet amidst the tensions, there were glimmers of the détente to come. I was about to leave to spend several months in the Soviet Union under the auspices of the newly signed U.S.-U.S.S.R. Scientific and Cultural Exchange Agreement. I had gotten approval to take a leave from my post as associate chief of staff at the VA Hospital in Oteen, N.C., and had acquired a working knowledge of Russian. My mission was to study specialized surgical stapling devices made in the Soviet Union.

A few weeks before I left for Russia, Dr. William Chardack—chief of surgery at the VA Hospital in Buffalo, N.Y., and a friend of mine—had received a letter from a Czech cardiologist. Bill Chardack was the coinventor of the world's first completely implantable cardiac pacemaker. In impeccable English, Dr. Jan Dufek wrote to him as follows:

#### Prague, March 10, 1962

*Dear Sir: I am writing to you in the following matter. I am a heart specialist, head of the cardiologic department in the hospital in Pardubice (a town about 60 miles east of Prague.) At present I am myself a patient of the Institute of Experimental Therapy in Prague. I have read with great interest your papers on the pacemaker and did not realize at the time that I shall have to address you in this matter for help on my own behalf.*

The Czech doctor went on to explain that he'd recently had a heart attack—his second—and that

it had left him with a heart block, a condition in which the normal electrical impulses that make the heart beat had been cut off by scarring. His usual heart rate of 80 beats per minute had dropped to 30. He was almost completely incapacitated and could no longer work. He had sudden fainting spells when his heart rate would briefly drop still lower. And the threat of a complete cardiac standstill, meaning sudden death, was ever-present. He knew that acquiring a pacemaker was the only way to avert this catastrophe.

His letter continued:

*As a specialist, you will understand my desire to be fit again and to resume my work without the threat of cardiac syncope. I am writing, therefore, for advice on how to procure a pacemaker. I realize that it is still in the experimental stage, but I know I must have one to survive. Unfortunately, I have no foreign currency to cover the expenses, but unless I get a pacemaker I am faced with the perspective of going into invalid pension and living the life of a glasshouse flower. Lately, the fainting attacks have been more frequent.*

*I will not presume on your apparent Czech origin for any special consideration—yet I thank you very much in anticipation and apologize for taking up your precious time.*

Bill Chardack responded as follows:

#### Buffalo, N.Y., April 9, 1962

*I have your letter of March 10. It so happens that Dr. Tim Takaro from Oteen, N.C., a thoracic surgeon, is currently in the Soviet Union under the auspices of the U.S.-U.S.S.R. Exchange program. He has one of my pacemakers with him, and I am sure that he would be willing to operate on you if you can manage to have him invited to visit your institute in Prague. I am forwarding to Dr. Takaro through official channels a copy of your letter, and I will write to you again to inform you of his current address in Moscow.*

The pacemaker I had with me was a demonstration model—a small, battery-operated gadget about twice as big as a spool of Scotch tape and much the same shape. Attached to the body of the device were two insulated wires the thickness of a piece of spaghetti. The whole thing—except for a short segment of exposed, coiled metal at the ends of the electrodes—was encased in silicone rubber. The device could be programmed to deliver tiny electrical shocks regularly and indefinitely to a heart whose normal impulses had been blocked by disease.

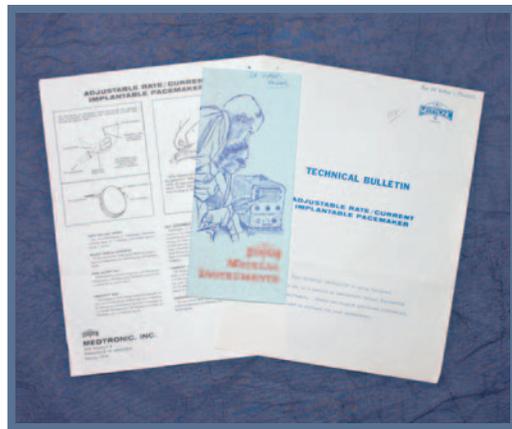
Yet the concept of regulating the heart's beat was still quite new in 1962. External pacemakers had been around only 10 years, and the first inter-

**The story of the first  
pacemaker implantation  
performed behind  
the Iron Curtain is as  
suspenseful as any John  
le Carré novel. But this  
saga's literary twists  
and technological turns  
—from the pen of the  
DMS graduate who  
performed the operation  
—have to do not with  
espionage, but with  
surgery. And humanity.**

*Takaro, a 1942 graduate of DMS, is a retired thoracic surgeon and former chief of staff at the VA Medical Center in Asheville, N.C. He has written several previous features for DARTMOUTH MEDICINE, including—for the Fall 2004 issue—"The Man in the Middle," about the crucial role played by Dartmouth College alumnus Basil O'Connor in the development of the Salk polio vaccine. The punctuation and spelling of the letters included in this issue have been standardized, and in some cases the original wording has been adapted slightly or excerpted from longer passages.*



Right: Brochures and handbooks marketing and explaining the use of the pacemaker Takaro had with him.



**I had asked the device's inventor to let me take one to demonstrate behind the Iron Curtain, where it would be very much a novelty. He had graciously complied, and so I packed the cream-colored apparatus—as well as a short movie on its use—in my bags.**

nal model had been developed just three years earlier. But in short order, the implantable pacemaker had revolutionized the treatment of heart block—so much so that I had asked its inventor to let me take one to demonstrate behind the Iron Curtain, where it would be very much a novelty. He had graciously complied, and so I packed the cream-colored apparatus—as well as a short movie on its use—in my bags, along with my own surgical stapling devices. I'd already shown off the pacemaker at Moscow's Vishnevsky Institute of Surgery, and elsewhere in Russia, by the time Dr. Dufek's first letter reached me in Moscow.

#### Pardubice, No Date

Dr. Takaro: I am sure that by now you have received Dr. Chardack's letter, and I would be glad if you could write me whether it could be possible to make the implantation of your pacemaker. For the time being I am using large amounts of Isoproterenol [at the time the best drug available for his condition] and feel a little better. But being a cardiologist, I know that the only right solution of my complete heart block is the implantation of a pacemaker. I should like to know whether it would be possible for you to carry out that operation here in Prague, where they specialize in heart operations. We should be glad to welcome you in this country. If your program does not permit you a visit in Czechoslovakia, I am ready to get to Moscow. . . .

Please let me know about the costs connected with the operation. I should be very glad if my working possibilities were restored and thank you in advance for your kindness.

I marveled at the calmness of this letter from the hand of a writer who could drop dead at any moment. I myself was feeling somewhat more nervous. I had implanted a pacemaker once, shortly before I left the U.S., and I knew that it was a fairly simple procedure. However, that surgery had been done in my own operating room with an expert anesthesia

service and up-to-date instruments and equipment. During the two months I'd been in Moscow, I had been shocked by how far Russia (and presumably the rest of the countries behind the Iron Curtain) lagged behind the U.S. and Western Europe in ordinary medical technology. To begin with, I knew they didn't have the right equipment to sterilize the pacemaker, which could not be steam-sterilized.

But the possibility of helping out this Czech cardiologist excited me, so I resolved to do my utmost to carry out his request. As far as I knew, the device itself was in perfect working condition. It was one of the latest models and had even been modified to permit external control of the strength and frequency of the electrical stimuli after implantation, by means of a needle designed to be inserted through the skin and into a control port on the pacemaker. Yet technological problems weren't the only ones I had to solve. To pay a visit to Prague, I would need permission from the U.S. State Department and both the Russian and Czech governments. But undeterred by either political or medical hurdles, I responded to Dr. Dufek that I would do everything in my power to help him. He replied:

#### Prague, May 3, 1962

Dear Dr. Takaro: I thank you very much for your letter and for the care you devote to my problem. I myself try to get received by a minister in the government whom I once treated, who as I hope could make the solution easier.

I would extremely like to be operated upon by you on your way back to your country and that's why I try to speed up the affair. I rely only on your kind offer of sending me at worst your pacemaker which would then be implanted in me by the clinic in Prague. Without your kind help I should never get hold of a pacemaker and that is why I am very much obliged to you for your friendly and exceptional help. I always hope that we shall succeed in meeting either in Moscow or this country, if not in May then towards the end of June.

The next item in my "Dufek File" is a letter I received three weeks later from Washington, D.C.—from the director of surgery in the Veterans Administration's Central Office. He was a friend, and a very decent chap, but only one small cog in the very large bureaucracies involved in this case.

"I have reviewed your correspondence with Dr. Dufek," my friend wrote, "and the appended questions to me and the other authorities here in Central Office. While I feel that there should be no problem in your doing the operation, either in Moscow or Prague, and certainly no issue in using the pacemaker without cost to the patient, these things and many others are under consideration in

our State Department. Until a decision is rendered at that level, we all regret that there is nothing we can do but wait.”

Wait we did. Ultimately, all the obstacles were removed. I think the potential propaganda value of the operation for the U.S. played a role in the favorable outcome. In any event, the next item in the file is a letter from Dr. Dufek:

#### Prague, June 7, 1962

*I have just received news from the Ministry of Health to say that you may get the visa in the Czechoslovakian Embassy in Moscow on the 12th of June approximately. I shall arrange your accommodation in the Hotel Internationale, mostly occupied by foreigners. Otherwise, you will be the guest of the Institute headed by Prof. Spacek, with whom I have settled all details. Our ministry let me know that you must fill in only the date of your arrival here. The rest will be settled here. As mail is sometimes a bit late here, I think it best to cable the date and hour of your arrival. As I may be hospitalized at that time, there will be somebody from the Institute staff to await you at the airport. Please bring along the demonstration film you mentioned having in your possession, as there is considerable interest here in this device.*

There was one more letter that arrived from Dr. Dufek before I left Moscow:

#### Prague, June 24, 1962

*Dear Dr. Takaro: Many thanks for your cablegram. I feel extremely happy to find all arranged. I've visited the American Embassy yesterday and was received with utmost kindness by Mr. James Ward, the vice consul, who expressed his satisfaction at my having succeeded in establishing a cooperation between you and our doctors. It was a hard job lasting almost half a year. And sorry to say accomplished only by me and my family.*

*An operation theatre with assistants will be at your disposal. Dr. Spacek and Prof. Navratil, who specializes in cardiac surgery, would also like to take part. An assistant who has been half a year in the U.S.A. begged me to ask whether the life of the batteries of a pacemaker isn't affected by the pacemaker not being implanted; and what is your view on the problem of tissue forming on the electrodes in the myocardium. How long can the pacemaker be expected to function before the batteries wear out? Please excuse these questions but we want, as you see, to make full use of your knowledge to increase our rather limited experience in this field. We shall be grateful for all information and would like to continue being in touch with you and at the same time following developments of the pacemaker. I would like to have other questions discussed with you, and therefore a friend of mine will be present as interpreter for us*



Above: Author Tim Takaro (center) in Moscow, with two Russian surgeons, before he left for Prague. Left: Dr. Bill Chardack (left), the coinventor of the first implantable pacemaker.

*not to waste time. My written English is superior to my spoken, but I hope to speak fluently when we next meet. Actually, my daughter, Daniela, aged 12, is also studying English and is almost as good as I am. She and my wife are both expecting also to meet you.*

*There is a lively interest in the pacemaker from various workers, and I would beg you to let them see it only in your presence so as to avoid any possible damage owing to an extreme curiosity or mishandling. That would be a tragedy after such long negotiations and so many troubles.*

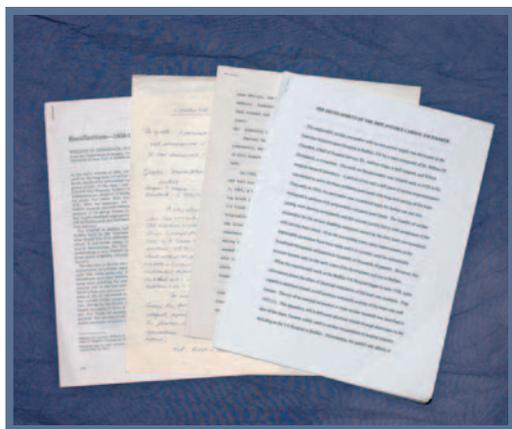
*I would like to meet you at the airport and thus give you a welcome to this country with both my wife and daughter. Please let me know as soon as possible the day and hour of your coming here, best by cable.*

At last all the pieces were in place, after several frantic exchanges of cables, last-minute flight arrangements, and multiple visits to the Czech Embassy to procure my visa. Even the most vexing problem, getting the device sterilized, had been solved. The conventional method of steam autoclaving at a high temperature would have ruined

**“I would extremely like to be operated upon by you on your way back to your country,” wrote the Czech cardiologist. “Without your kind help I should never get hold of a pacemaker and that is why I am very much obliged to you.”**



Right: Papers about the pacemaker's development, Takaro's operative notes, and a report on Dufek's case.



**"I had the pacemaker sterilized today at the Karolinska Institute (that's what they call this beautiful medical center) since it can't be done properly in Prague," wrote Takaro to his wife back home. "I met a couple of Czech docs here. They seem to know all about Dufek and the upcoming operation."**

the delicate electronic circuitry of the device. Newer ethylene oxide gas sterilizers, which operated at room temperature, were unavailable anywhere behind the Iron Curtain. Fortunately, though, I had planned to attend the meetings of the International Cardiovascular Society in Stockholm at the beginning of July. I knew that the Swedes were eons ahead of the Russians in terms of medical technology, and I made arrangements to get the pacemaker sterilized at the Karolinska Institute there. Then I would fly directly on to Prague, with the pacemaker in a sterile package.

The next several letters in the file are from me to my wife back in North Carolina:

**Stockholm, July 1, 1962**

Dearest Marilyn: You can't imagine what an exhilarating sensation it was to be leaving Russia. I had the finest breakfast in the past three months on board the Scandinavian Airlines flight flying out. The change in feeling between Moscow and Stockholm is incredible! Even though it's wet and gray outside, I already love this town! As far as I'm concerned, the sun is shining everywhere. I know this is an emotional reaction, but it's based on very obvious reality. It strikes one instantly how differently people are handled in Russia and in Sweden. For instance, when you arrive in Russia, as your plane lands, a Russian police official steps on board before anybody is let off and collects everybody's passport as each person leaves the plane. They are so damn suspicious of the entire decadent capitalist world, as well as the "neutral" world and even of their own people, that they have to plant somebody on the plane the minute it lands. In Stockholm, . . . a five-second glance at the passport—no visa required—and I was in Sweden. I find it hard to believe that my emotions should be so strongly moved by this difference. . . .

I wandered into a half-empty cafeteria for food. Gad, what food! It's terrible to be so hedonistic, I know, but it isn't the food and the stuff in these gorgeous stores

so much as the honesty and the reality of life here. There is no big fraud being perpetrated here—no huge signs and slogans about "FORWARD TO COMMUNISM" and "WE ARE BUILDING COMMUNISM" and "PEACE TO THE WORLD!" while the dull, controlled, sad, and miserable life of Moscow so obviously contradicts the baloney. I was not in the least nostalgic about leaving Moscow—their dream may be beautiful, but they don't seem to know beans about human nature and human dignity and they don't seem to care, either. The distance between dream and reality is not only infinite but, in my opinion, unbridgeable. . . .

I almost hate to go back behind the Iron Curtain again to Prague, but I feel I must try to help out this nice Czech doc. I'd really rather go straight home to you and to a country that, while it is cock-eyed, screwy, and troubled, is at least not totally fraudulent.

**Stockholm, July 3, 1962**

Well, I had the pacemaker sterilized today at the Karolinska Institute (that's what they call this beautiful medical center) since it can't be done properly in Prague. I met a couple of Czech docs here. They seem to know all about Dufek and the upcoming operation, and they gave me some dope about him and about the set-up I'm to expect. It should be an interesting experience, and I hope for Dr. Dufek's sake that all goes well. Also for the sake of the American embassy people, because I get the impression they are going to try to get as much mileage out of this as possible.

**Prague, July 4, 1962**

The trip to Prague through East Germany was uneventful, and the Dufeks were waiting for me, along with the Czech vice consul for our embassy—a Mr. Jim Ward. The Dufeks are very fine people. They are most anxious about the outcome of this trip—naturally. Dr. Dufek is about 52. The most striking thing about him are his tired-looking eyes. They are of the clearest, lightest blue I've ever seen. Mrs. Dufkova—Jarmila—is in that same age range, a bit shy, and they have a lively 12-year-old daughter, Daniela, who is a charmer. We got along fine in three languages—in Czechoslovakian, via an excellent interpreter, George Sykora, who came with Mr. Ward from the embassy; in Dr. Dufek's fractured English (not as good as his written English, on which he must have had help), and in school-girl Russian between me and Daniela—so I think we'll be okay. Actually, Daniela is better at English than her father.

I'm in an ancient, huge hotel in a huge, ancient room with gorgeous paneling and leaky plumbing. At 3:00 a.m., a gesticulating house detective unceremoniously unlocked my door and walked in—and then apologized. He said a light was on outside in the hall over my door, which indicated I wanted help. He said I must have turned it on accidentally when I had switched off

my light and gone to sleep three hours before. Oh, well—one gets accustomed to the unexpected.

We chatted in the Dufeks' room in this hotel for about an hour after arriving here at 10:00 p.m., to get the history of his illness and to try to figure out if the operation is necessary. It is.

### Prague, July 6, 1962

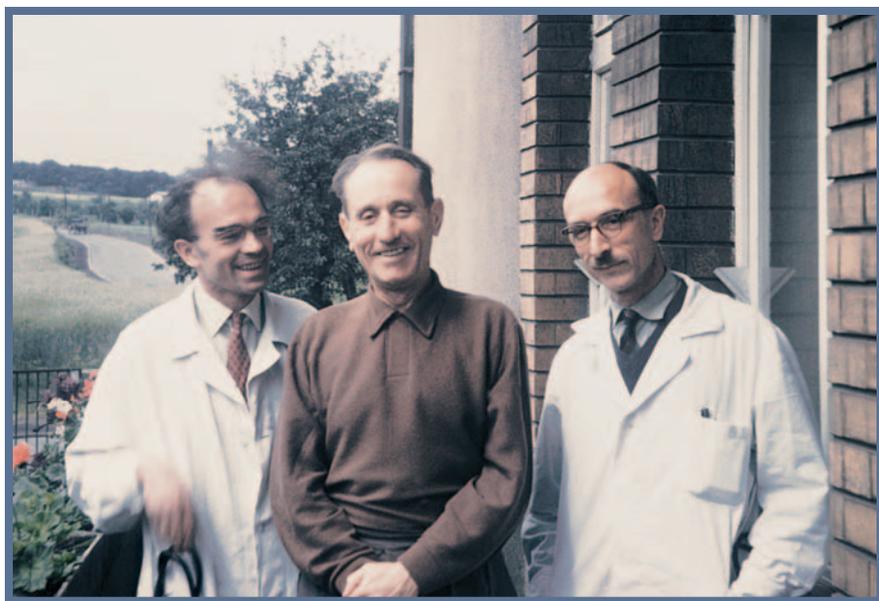
Yesterday, George Sykora, along with Mrs. Jarmila Dufkova and Daniela, met me in the lobby and we all drove over to the hospital together. There, after quite a wait, the external pacemaker from Brno arrived by car. This was a back-up device for emergency use in case Dr. Dufek's heart stopped beating after he was anesthetized but before we could get his chest opened and his heart exposed. After a lot of backing and filling, including being shown through a fabulous experimental surgical suite filled with tiled cages for animals, we had lunch in one of the sub-chief's offices while we listened to taped jazz from Radio Luxembourg on his hi-fi set in the office. I think he was trying to impress me.

Finally, we were invited to check around in the operating room we were to use. The oscilloscope didn't function too well and the external pacemaker not at all, but we began operating in spite of these deficiencies at 3:00 p.m. to a packed gallery. Fortunately, the anesthesiologist was a well-trained man who had lived in England for seven years. Both his English and his skills were perfect, and he did a good job. The operation went slowly but smoothly. Since I knew I could not be around during Dr. Dufek's postoperative period, I was damned careful about controlling every single bleeding point. Dr. Dufek's heart is now beating away at 60 beats per minute instead of 30. We got him safely back to the recovery room. This a.m. I was up and out to see Dr. Dufek—all rosy. A quick tour of the cardiovascular unit—run by a busy, active, interesting bunch of guys. Then a short visit to the embassy—met Mr. Wales, the American ambassador—congratulations all around. I'm here one more day to be sure Dr. Dufek is okay and then on my way home!

The next document in the file is a letter a month later from Jim Ward, the American vice consul who had been so helpful:

### Prague, August 5, 1962

My dear Doctor Takaro: I wish to inform you that George Sykora and I went to see Dr. Dufek on Sunday July 22 and again on July 29 and found him in excellent health. We both spent a delightful afternoon with him and his family each time, and you just can't imagine how happy they all are. Dr. Dufek was very grateful for the valuable information you sent him from the plane—he is going to write you as soon as he finds a good dictionary. His daughter, Dada, who has definite-



Above: Cardiologist Jan Dufek (center), with two Czech colleagues. Left: The Swedish Karolinska Institute, where the pacemaker was sterilized before its implantation.

ly become "addicted" to you, will also write. The whole family is going to some spa in Bohemia and will be back in September.

A report on your operation, picked up from the UPI, appeared in the daily bulletin published by the press section of the embassy at the end of July. Today—August 5—a correspondent from Newsweek called up from Vienna and asked for Dr. Dufek's address and home phone number. Evidently, Newsweek wants to publish a short story on the whole thing in the medical column.

I can't tell you more about Dr. Dufek medically except that he looks fine, his pulse is 62 per minute, and he has gone swimming and keeps kidding his wife that he'll have to have another pacemaker inserted with electrodes leading in the opposite direction in his body—just to keep him "going."

Dr. Dufek has been avidly studying English since his recovery from the operation. He intends to apply to the ministry for permission to visit the United States next February or March. He wants to visit you, Dr. Chardack, and the factory where the pacemakers are manufactured. Presumably he hopes by then to have a clearer picture of what the annual need for pacemakers

**"A report on [the] operation, picked up from the UPI, appeared in the daily bulletin published by the press section of the embassy," wrote the U.S. vice consul. "Newsweek wants to publish a short story on the whole thing."**



Right: The operation that Takaro performed made quite a few headlines in the United States.



**"You may not have realized that many of the Czech doctors who witnessed the operation were critical afterwards of the length of time it took," wrote the vice consul to Takaro, "and said that their technique would have enabled them to complete the operation in one-third of the time."**

in Czechoslovakia will be, and he said that he would like to be able to arrange for the C.S.S.R. to import them from the U.S.

You may not have realized that many of the Czech doctors who witnessed the operation were critical afterwards of the length of time it took, and said that their technique would have enabled them to complete the operation in one-third of the time. One doctor who had once operated in the U.S.S.R. (Dr. Hejhal) tried to apologize for you by saying that it just takes longer to operate under circumstances to which one is not accustomed, i.e., a different country, language, operating room, assistants, instruments, etc.

Perhaps what he said was partly correct, but it appears that the critics now seem to have changed their minds as a result of the amazingly swift recovery of Dr. Dufek. Had the local rapid technique of operating been used, I am told, he would have been hospitalized for four weeks because of hematomas in his wounds.

As I mentioned, Jiri [interpreter George Sykora's nickname] and I had lunch with the Doctor and Mrs. Dufkova at the Alcron on July 20, just two weeks after his operation and just before he left for his home in Pardubice. When we saw him again on the 29th, he had been visited both in the hospital and at home by many Czech doctors and he has been giving them all a sales pitch on the superiority of your "slow" operational technique. He told me that he intends to give a talk on the subject at the International Seminar on Cardiovascular Surgery this fall and that he will exhibit himself as proof of the superiority of this technique in chest operations.

I concur in the belief of Dr. Dufek and Jiri that the former was fortunate that such an excellent surgeon was chosen to operate on him. I believe that you had an excellent patient as well.

Next in the "Dufek File" are several newspaper clippings with headlines of this sort: "U.S. Surgeon Saves Life of Czech Doctor" and "American Science Behind the Iron Curtain" and "VA's Heart

Pacemaker Saves Doctor's Life in U.S.S.R." The flurry of publicity soon died down, and I was happy to receive several letters from Dr. Dufek himself:

**Pardubice, August 6, 1962**

Dear Doctor: Many sincere greetings both to you and to your wife from me, as well as from my wife and Daniela. I feel very well. My pulse is 62 and I have no dizziness any more. The pacemaker works perfectly, and thus I am glad of the successful operation. This operation having provoked a strong widespread interest, I find myself constantly interviewed by somebody and came to the conclusion that the best solution will be to retire with my wife to a spa.

Mr. Ward procured for me the article in the JAMA [Journal of the American Medical Association]. He is very kind to me and does his best to help in anything. He and Mr. Sykora came to see us in Pardubice on Sunday the 22nd and again on the 29th, when we celebrated Daniela's 13th birthday. We all remembered you and were sorry for your being absent from here.

You are cordially greeted by the center doctors. They were very fond of you even though you passed only a few days in Prague. Both you and Dr. Chardack will get invitations from the Ministry of Health to the International Symposium of Cardiovascular Surgery taking place in Prague in November to come.

Please let me know whether there are any doctors among the pacemaker-implanted people and how many. I am interested especially in internists and cardiologists and how many cases were operated by you and by Dr. Chardack.

I am closing now and dare wishing you will not omit sending me the promised photographs of yours and of your family. I am like a reborn man.

**Pardubice, November 25, 1962**

I am sending you best regards from myself and the whole family. As about myself I am all right. Dr. Chardack has written to me asking my experience with a slightly subnormal rate of action of the pacemaker. I replied a fortnight ago in the sense that I agree with his opinion on those 60 pulses being quite sufficient.

With Christmas approaching, receive please our sincere wishes to pass it in happiness and peace and good health, the same as for the year 1963.

P.S.: Daniela is delighted to be in correspondence with your son.

**Pardubice, April 21, 1963**

Dear Doctor Takaro: Please accept my apologies for not having written to you sooner, but I have been troubled with a flu. Many thanks for the photographs showing your lovely family.

I see now that action of my 53 pulses is a little slow because having passed a flu. I found a slight swelling of

the ankles appearing which, however, disappeared under diuretics. I am working now eight or more hours a day, and without flu I am quite well.

We would like to spare my battery, and that's why I do not object to reset the rate of 60 again, according to your written instructions kindly sent to me, specifying the acceleration of pulsing. I have not any instructions now for the regulation in the case of the battery getting discharged.

Myself and the whole of my family are sending you our best regards, always thinking of you and are looking forward to any soon letter from you.

P.S.: Daniela's English is improving rapidly; many thanks to your son for helping in that.

I wrote back soon after that to Dr. Dufek:

#### Oteen, N.C., May 7, 1963

Dear Doctor Dufek: I hope this letter finds you well. Recently I spoke with Dr. Chardack. He finds in his experience that many pacemakers which he has placed in patients have needed to be replaced after about two years. He recommends that you get in touch with Dr. Piwnica in Paris, or someone else who is now doing this type of work. Ask to have your pacemaker replaced with a new one before the batteries actually lose their power. If you want to inquire about this, you might wish to write directly to Dr. Chardack about particulars; or I can contact him for you, whichever you prefer. Let me know how things go, and if I can be of any help.

At the beginning of 1964, two letters arrived from Dr. Dufek within the space of a week:

#### Pardubice, January 22, 1964

Dear Doctor Takaro: The Merck Manual you sent arrived all right. I am very glad of it. It's tabular and will help me in my practice on various occasions. Many thanks.

I have written to Dr. Piwnica in Paris. I shall maybe obtain a favorable reply in a short time, but so far there has been no word.

The pacemaker works very well and I am well, too. I hope that it will work further according to plan. The two years will expire this year. In these days, I observe that the pulse is now down to 50.

Daniela trains every day, and she will take part in the figure-skating championship in Hradec. Are you interested in figure-skating, too? As for skiing, the snow situation is not favorable this year.

I wish you good health and much success this year.

#### Pardubice, January 25, 1964

I was delighted to receive your letter dated December 18. This letter incomprehensibly did not arrive until January 23, the day after I wrote to you. Your Christ-



Above (from the left): Dr. Peleska, a Czech cardiologist; Jarmila Dufkova; her daughter, Daniela; interpreter George Sykora. Left: Takaro (right) and a Russian doctor he worked with.

mas greeting is very nice, and you and your family look well in the photograph you sent. What a pity that we cannot send you something similar.

I hope you will in the meantime receive my letter dated three days ago, and I can only repeat my best wishes and my personal regards.

P.S.: My pulse rate is now at 50. I think the batteries may be losing their power. What do you advise?

P.S. 2: Daniela sends her love. She was pleased to have the photograph of your son. She has not heard whether he received the one she sent. She won in the last figure-skating contest in Hradec. She is probably too modest to mention it.

Several months passed and then came a thunderbolt—in a letter from Jarmila Dufkova:

#### Pardubice, December 18, 1964

Dear Doctor Takaro: Owing to the fact that the death announcement of my husband, Dr. Jan Dufek, may not yet have come to you (it was missent by ship mail), I am making you to know that Dr. Dufek died on November 9, 1964. The postmortem examination

**"We would like to spare my battery," wrote Dufek, "and that's why I do not object to reset the rate of 60 again, according to your written instructions kindly sent to me. . . . I have not any instructions now for the regulation in the case of the battery getting discharged."**



Right: Some of the many letters in Takaro's "Dufek File," many of them carbon copies on onionskin paper.



**"My husband had a lot of plans and of energy to work," wrote Dufek's widow to Takaro after her husband's death. "Please, if you know the reason of the death, be so kind as to let me know. . . . We are very sad."**

has shown that there had not been any myocardial infarction and only insignificant fibrosis at the electrodes.

A more detailed postmortem material written by doctors can be sent over to you, as well as all Dr. Dufek's material—including his regular EKGs covering also the period immediately preceding the death.

My husband had been feeling perfectly well in the evening before his death, enjoying TV programmes, and all had been at its best.

In the morning I was awakened by his rattling breathing that had lasted about quarter of an hour. The doctor came no sooner than half an hour later. Maybe I didn't act sufficiently quickly, and moreover there was no correct doctor at hand.

My husband was about to go both in Paris and the U.S.A., and it seems he had been tired by arranging all necessary things. I suppose that his journey to the U.S.A. for a checkup would have been preferable.

Finally, please let me know what to do with the pacemaker. I know that Dr. Chardack will want to examine it to see if the batteries did indeed fail.

Wishing you all the best for 1965, both you and your family.

P.S.: In case this letter gets over before Christmas, receive our most sincere Christmas wishes.

P.S. 2: The pacemaker worked perfectly.

The last document in the file is a letter that arrived six months later from the widow Dufkova:

**Pardubice, June 9, 1965**

*Dear Doctor Takaro: I beg your pardon for being so late with my answer. To begin with, I lent the pacemaker to Dr. Peleska and then I was trying to get it back, but I didn't succeed. And then I got ill. It was a bad nervous disorder. My daughter not much better with her health. (I don't know if you could feel during your short stay the rarely [sic] warm relationship between Daniela and her father.)*

*At last Dr. Peleska announced to me the pacemaker was addressed to Dr. Chardack. I questioned if the*

*pacemaker came in order to the U.S.A. My husband was not a patient of Dr. Peleska.*

*From the correspondence of my husband, it appears that he was anxious about the arrangement and control of the pacemaker, and I suppose he couldn't get sufficient information by letter.*

*I am very sorry, and I am thinking of it day and night, that we didn't try hard enough to make his journey to the U.S.A. instead of the planned journey to France. Dr. Piwnica wrote they are in electronics not so far as in the U.S.A. I was prepared to bring everything in sacrifice.*

*During the last time my husband didn't look healthy. He was livid, and about a month before his death he had attacks of faintness, which he was able to overcome. I remember it was during the TV programme, and in the eve of his death he also looked a long time at TV. I wonder if this fact was not perhaps of some influence?*

*In August 1964, at the Cardiologic Conference in Prague, my husband spoke with his friends about eventual fibrosis and in that case about the necessity to replace electrodes. I suppose he didn't mind enough his own case, or rather he had on his mind different possibilities in the foreign countries.*

*Dr. Peleska sent the postmortem material to Prof. Dr. Chardack, as I see from the copy of his letter. Please let me know if you wish to get EKG or another information relating to the time before his death. The head of the Department of Pathology told me recently that the reason for the death is not yet known and that the material is under study.*

*My husband had a lot of plans and of energy to work. He planned with certainty the journey to the U.S.A. He wished very much to meet Prof. Chardack and we all looked forward to meeting you and getting acquainted with your family, especially Daniela.*

*Please, if you know the reason of the death, be so kind as to let me know. . . . We are very sad. The correspondence with your son comforts Daniela very much.*

That is the last item in the "Dufek File." I sent a letter of condolence to Madame Dufkova but heard no more from the family. And at about the same time, Bill Chardack's research interests diverged from mine and I lost touch with him for the next three decades. By the time we reestablished contact, he was not well, and the subject of Dr. Dufek's pacemaker did not come up.

However, I have no reason to suspect any reason for the device's failure other than the batteries had reached the end of their useful life—then about two years. Dr. Dufek's batteries actually lasted a few months beyond that period.

Today, the batteries in a pacemaker can last for up to seven years. ■