Transplantation in Turkey

Mehmet HABERAL, MD, FACS, FICS (Hon)
Professor, Surgery
Chairman, Department of General Surgery, Transplantation and Burn Institutes, Faculty of Medicine, Founder and President, Baskent University
Legislation, Education and Coordination (L.E.C.)

Transplantation Activities in Turkey

1. Transplantation
2. Legislation and Organ Donation
3. Facilities, Societies, and Scientific Activities
Transplantation
I would like to give you some brief historical data about my background so that you may better understand the development of transplantation in Turkey.

Following my graduation from the Ankara University School of Medicine in Ankara, in 1967,
I joined the Department of General Surgery at Hacettepe University Medical School, in July 1967, as resident.
During my residency, I was very interested in a variety of experimental studies, especially those being done in dogs.

The late 60s were a very important time in medicine. On December 3, 1967, Dr. Christiaan Barnard had just performed the world's first heart transplantation in Cape Town, South Africa.

I was present at the Christiaan Barnard conferences in Beirut, 1970.
Following this, in 1969, 2 heart transplantation trials were performed in Turkey—one in Ankara and one in Istanbul. Unfortunately, both were unsuccessful.
In 1970, a transplantation research program was established at Hacettepe University in the Department of General Surgery, and I was one of the members of the surgical team. At that time, I was in my third year of residency. We began by performing experimental liver transplantations in pigs using porta-right arterial bypass, but this method proved unsuccessful. We stopped our studies using pig models, and I decided to continue the program using dogs this time. This method, without bypass, proved successful.
Upon completion of my residency in 1971, I was appointed Assistant Professor in the Department of General Surgery at Hacettepe University Medical School.
In addition to the transplantation models I was working on, I also was greatly interested in burn care. I therefore decided to apply to several universities in the United States with the hopes of going there and learning more about these 2 exciting and growing fields. After several months of eager anticipation, I was accepted as a fellow at the Shriners Burns Institute and at John Sealy Hospital in Galveston, Texas. And so, in February 1973,
Role of serum nonsuppressible insulin-like activity (NSILA) in wound healing.  
1. Influence of thyroparathyroidectomy on serum NSILA and wound healing in the rat

Phillip L. Proffenbarger, M.S., M.D., Galveston, Texas, and Mehmet A. Haberal, M.D., Ankara, Turkey

Serum contains a 90,000 molecular weight protein that exhibits insulin-like activity on adipocytes, skeletal muscle, and fibroblasts in tissue culture; however, this protein is physiologically and immunologically distinct from insulin and presently is termed “nonsuppressible insulin-like activity (NSILA).” This study was designed to assess the response of serum NSILA to thyroparathyroidectomy (TPTX) and to assess this response with tissue repair processes in the injured rat. It was postulated that NSILA modulates the fibroblastic response in wound healing. TPTX decreased NSILA to 40 percent of control levels (p < 0.001). Male animals subsequently were castrated at either a 10 percent third-degree burn or skin incision. Following injury, NSILA significantly increased in both control and TPTX groups, but the acute-phase response was restored to TPTX animals. Light microscopy of granulation tissue demonstrated a diminution in the fibroblastic response in TPTX animals. Hydroxyproline analysis of granulation tissue revealed a significant decrease (p < 0.003) in collagen content in TPTX animals with low NSILA levels. These results suggest that serum NSILA levels are controlled, in part, by thyroid hormone and that NSILA may modulate the fibroblastic response of connective tissue repair processes.

From the University of Texas, and the Department of Surgery and Medicine, University of Texas Medical Branch, Galveston, Texas

I went to the United States, where I studied with Drs. Duane Larson and Mario Dubokowsky and learned a great deal about clinical burn care and rehabilitation, and experimental studies.
As you most likely know, Dr. Starzl was the first physician in the world to perform a clinical liver transplantation in 1963, and successfully in 1967.

Application Letter to Dr. Thomas Starzl, University of Colorado, Denver, 1973

As you most likely know, Dr. Starzl was the first physician in the world to perform a clinical liver transplantation in 1963, and successfully in 1967.

Dear Doctor Starzl:

May I introduce myself to you. I am Mehmet Haberal, a native of Turkey. Since February of this year I have been a fellow in burns surgery, working with Dr. D.L. Larson at the Shriners Burns Institute and at John Sealy Hospital here in Galveston. I have completed successfully the E.C.P.M.G. certificate. I am especially interested in the problems of tissue transplantation (particularly, liver transplantation) and wound healing. I would like very much to work with your transplantation program, if there is any possibility. Included is my curriculum vitae. I will look forward to hearing from you soon.

Sincerely yours,

Mehmet Haberal, M.D., Fellow in Surgery

And yet, I wanted to learn more about transplantation. Therefore, after this fellowship, I sent letters to many transplantation centers in the United States, one of which was to Dr. Thomas Starzl at the University of Colorado, School of Medicine, in Denver.
Dr. Starzl accepted my fellowship application; however, he underscored the fact that there were not enough funds to pay me a salary. However, that did not dissuade me from accepting the position.
On January 1, 1974, I left Galveston and went to Denver. (And incidentally, after my third month in Denver, they were able to create a fund with which to pay me a modest sum). For a year and a half, until June 30, 1975, I worked in Denver, during which time I learned many things related to experimental and clinical kidney and liver transplantation.
I returned to Turkey on June 30, 1975, and at that time, no work or innovative processes were being done in the field of transplantation. There had been the creation of a few dialysis centers but nothing more. A beginning had to be made.

My first goal, then, was to establish a burn unit and a transplantation unit at Hacettepe University Hospitals and to begin performing renal transplantations as quickly as possible. Because, in my country, many people were dying of chronic kidney and liver diseases that could have been treated with transplantation.

With the chairman of the department of general surgery and all members of the staff, I discussed my ideas of launching a kidney transplantation program. And since the acceptance of my department, alone, was not going to be enough, I had to convince the members of other departments (those that were related to transplantation) as well. I knocked on nearly every door at the University. To convince them that a transplantation program was much needed, I made a detailed presentation about my activities in Denver.

Finally, I visited Professor Coruh, who is here with me now. At the time, he was Director of the Institute of Population Studies at Hacettepe University. I talked to him about how I saw the situation, and he took me to Professor Ihsan Dogramaci, Founder and President of Hacettepe University, later, he also founded Bilkent University.

Prof. Dr. Ihsan Dogramaci & Bilkent University
Professor Dogramaci appointed me Consultant of Pediatric Nephrology. This step was crucial, because now, with that simple appointment, nearly 50% of my problems were solved.

To prepare for our first attempts at renal transplantation in human patients, I organized a surgical team. We began by performing experimental kidney transplantations on dogs first, since no one on the team was familiar with transplantations except me, and this is where the bulk of my training had been. Those first trials, which prepared our team, ultimately, for clinical transplantation, were successful. And when our team was ready, we performed the first human renal transplantation in Turkey with a kidney donated from a mother to a 12-year-old son on November 3, 1975.
Establishment of New Transplantation Units

It is interesting to note that there was no room in which to hospitalize the transplanted patient, and I was forced to bring the boy to a store room in which there were only 2 beds—one for the patient, and one for me. What’s more, no other person on the staff had the training necessary to care for the boy, and so, I had to take care of his postoperative course personally.

With this transplantation, the doors for transplantation in Turkey opened wide. From this point forward, we could establish new transplantation units as we saw fit.
Our next goal was to perform the first cadaveric kidney transplantation at our center, and on October 10, 1978, using an organ supplied by the Eurotransplant International Foundation, we did. At the same time, I contacted the South Eastern Organ Procurement Foundation to begin a relationship with them, and they began to send cadaver kidneys as well.
On July 27, 1979, our team performed the first local cadaveric kidney transplantation at our center.
First Successful Cadaver Liver Transplantation in Turkey, in the Middle East, and in Northern Africa, Turkish Transplantation & Burn Foundation Hospital, December 8, 1988

In addition to kidney transplantations, our team also performed:

- In December 8, 1988, the first successful cadaver liver transplantation in Turkey, in the Middle East, and in Northern Africa.
In 1989, our team also launched the first organ harvesting and sharing programs in different cities of Turkey.
First Pediatric Segmental Living-related Liver Transplantation, in Turkey, in the Region, and in Europe, Turkish Transplantation & Burn Foundation Hospital, March, 1990

These were followed by:

- The first pediatric segmental living-related liver transplantation in Turkey, the Middle East, and in Europe in March 1990.
First Adult Segmental Living-related Liver Transplantation in the World, Turkish Transplantation & Burn Foundation Hospital, April 1990

- The first adult segmental living-related liver transplantation in the world in April, 1990.
Patients with chronic liver disease patients were referred to us for transplantation. Unfortunately, the second cadaver donor was only available 1 year later. During this time, we realized that approximately 50% of the patients (both children and adults) on our list had died. It was this unfortunate consequence that led to our decision to perform living-related, partial liver transplantations in both children and adults.

Case Reports

Case 1

A child with biliary atresia was referred to us at the age of 7.5 months for assessment of a possible liver transplantation. The child was jaundiced at birth, and, at the age of 6 weeks, a Kasai portoenterostomy was performed at another hospital. No improvement occurred in the jaundice, and recurrent cholangitis and anemia continued.

At the time of referral, the child weighed 6.4 kg and had a temperature of 37.5°C, jaundice, and moderate hepatosplenomegaly. Laboratory examinations revealed the following data: hemoglobin, 9.5 g/dL; white blood cells (WBC), 8000 mm³; alkaline phosphatase (ALP), 450 U; serum glutamic oxaloacetic transaminase (SGOT), 90 U; serum glutamic pyruvic transaminase (SGPT), 40 U; total bilirubin, 80 mg/dL; direct bilirubin, 60 mg/dL; total protein, 60 g/L; albumin, 3.0 g/L; and prothrombin time, 18 minutes [1,2].

The child was prepared for cadaver liver transplantation and required blood transfusions and antibiotic therapy with good enteral feeding. He was discharged with some clinical improvement and put on the waiting list for a blood group A liver. Approximately 1 month later, the child was admitted with anemia (hemoglobin 7.6 g/dL) and a more advanced hyperbilirubinemia (total bilirubin, 9.2 mg/dL; direct bilirubin, 6.0 mg/dL). It was during this time that the parents were informed about living-related...
First Combined Liver-Kidney Transplantation from Living-related Donor, first operation of its kind, Turkish Transplantation & Burn Foundation Hospital, May 1992

And in May 1992, the first combined liver-kidney transplantation from a living-related donor, which was the first operation of its kind performed anywhere in the world.
In 2001, our country’s Health Ministry gathered all related resources together under one umbrella organization, the National Coordination Center, the aim of which is to promote transplantation activities, especially cadaver organ procurement. It still must be mentioned, however, that although cadaveric organ procurement is a great idea in theory—as is the case in many other countries—there are plenty of patients but not enough organs.

Today in Turkey, there are more than 40 transplantation centers (heart transplantation in 12 centers, liver transplantation in 23 centers, kidney transplantation in 38 centers, cornea transplantation in 23 centers, bone marrow transplantation in 27 centers). The ever-increasing amount of knowledge and experience (particularly within the last 2 decades), combined with advances in high-technology equipment and specialized teams of physicians, as well as the increasing number of hemodialysis and peritoneal dialysis units, has enabled transplant patients in Turkey to receive the most advanced care possible, especially with regard to kidney, liver, heart, kidney-pancreas, cornea, bone marrow, and a few heart and lung transplantations.

In addition, throughout Turkey, total number of hemodialysis centers is 727; peritoneal dialysis center is 113.
### Transplantation Activities in Turkey

<table>
<thead>
<tr>
<th>Organ/Tissue Donor</th>
<th>Cadaveric Donor</th>
<th>Living Donor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney</td>
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<td>7742 (74%)</td>
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<tr>
<td>Liver</td>
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<td>1058 (52%)</td>
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<td>Heart</td>
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<tr>
<td>Heart Valve</td>
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<tr>
<td>Pancreas</td>
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<td>83</td>
</tr>
<tr>
<td>Cornea</td>
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<tr>
<td>Bone Marrow</td>
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### Baskent University Team, Transplantation Activities, from November 1975 - July 2008

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<th>Organ/Tissue Donor</th>
<th>Cadaveric Donor</th>
<th>Living Donor</th>
<th>Total</th>
</tr>
</thead>
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<td>Liver</td>
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<td>Pancreas</td>
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</tr>
<tr>
<td>Cornea</td>
<td>112</td>
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</tr>
<tr>
<td>Bone Marrow</td>
<td>0</td>
<td>48</td>
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Legislation and Organ Donation
As I mentioned earlier, when I returned to Turkey in 1975, very few people were aware of transplantations, especially kidney transplantations. At the time, those with some understanding of transplantations were going to Europe or the United States for their surgeries. In Turkey, we simply had no transplantation infrastructure.

When I started transplantation, no legislation was in existence regarding transplantation, and therefore, any transplantations that were performed were done simply by written consent of the donor and the recipient. Also, the only option for transplant candidates on waiting lists in Turkey was to receive a graft from a first-degree living-related donor. Again, there were plenty of patients but not enough organs.
We were forced to use cadaveric organs, and it was up to me to prove that we could use cadaveric organs safely and effectively. I had to persuade the public at large that organs transplantations could help sick persons to get well, and also, I wanted to point out the terrible waste there was in having perfectly viable, transplantable organs, simply turn to ashes after the person’s death. That is why, to make more cadaveric organs available to Turkish patients, I contacted Eurotransplant and the South Eastern Organ Procurement Foundation, both which are responsible for the mediation and allocation of organ donations. I will always appreciate the cooperation of Eurotransplant Administrators, Drs. Bernard Cohen and Guido Persijn, and South Eastern Organ Procurement Foundation Administrator, Gene Pierce.
With the organs they supplied, many important and successful cadaver kidney transplantations followed. Even the kidneys transplanted with long cold ischemia times functioned great.

I should also emphasize that the organs supplied by organ procurement foundations were not "normal" cadaver kidneys; they generally came to us after having undergone more than 24 hours' cold ischemia. They were anatomically problematic as well. However, these kidneys were used with a high success rate. With these transplantations, we increased the cold ischemia time to more than 100 hours. In fact, one of my patients is still alive today, with a kidney transplanted in her, in 1983, after a cold ischemia time of 111 hours, 54 minutes. Her case proved that it is possible to keep a harvested kidney viable at +4°C for more than 100 hours.
This was a major achievement. Unfortunately, however, I was criticized by colleagues, both in my country and around the world, for using kidneys with “excessively long” ischemia times. It became common at conferences to hear people say, “Dr. Haberal brings kidneys back from the grave.” Even today, classical medical books continue to indicate a maximum acceptable cold ischemia time for kidneys of 72 hours.

I then began working with government authorities, trying to raise public awareness about the benefits of cadaver transplantation and the related challenges that face health professionals.
In addition, I worked with the Board of Religious Affairs and charity organizations, such as the Lions and Rotarians, and various groups in the publishing media.
I began to make guest appearances on television and radio programs together with my transplanted patients. We explained to the people, “What is a transplantation? and What is an organ donation? and Why is it necessary?” By doing this, the people we spoke to were able to see that the transplanted people were healthy and well following their surgeries. Through our use of the media, we attempted to persuade our Parliament, officials in the Department of Religious Affairs, the Ministry of Health, and those in other governmental institutions that transplantation was a life-saving procedure.
But still, some of the religious leaders accused me of interfering with God’s work. Finally, the Chairman of the Board of Religious Affairs explained that neither transplantation nor organ donation was against Muslim belief, referring to a sura from the Quran, sura Al-Maidah, Verse 32 (35 in some books), which says: ‘On that account: We ordained for the Children of Israel that if any one slew a person - unless it be for murder or for spreading mischief in the land - it would be as if he slew the whole people: and if any one saved a life, it would be as if he saved the life of the whole people. Then although there came to them Our apostles with clear signs, yet, even after that, many of them continued to commit excesses in the land.’

And by emphasizing especially the point, "Only the person to whom one donates one of his/her organs oneself is responsible for all his/her good and evil deeds," the Board of Religious Affairs published:
Republic of Turkey, the Supreme Board of Religious Affairs

The Supreme Board of Religious Affairs stated by its decision dated March 6th, 1980/396, that organ transplantation is lawful. According to this decision organ transplantation may only be performed under the following conditions:

1- Under necessity: that is, when a medical doctor, whose professional efficiency and integrity is respected, states that organ transplantation is the only way to save a patient’s life or one of his vital organs.
2- When the medical doctor is of the prevailing opinion that organ transplantation is the only way to cure the disease.
3- When it is certain that the person whose organ or tissue to be removed is dead.
4- When the patient who will receive a transplanted organ gives this consent to the operation.

Only the person to whom one donates one of his/her organs oneself is responsible for all his/her good and evil deeds.
Finally, following all those efforts, on June 3, 1979, legislation on harvesting, storing, grafting, and transplanting organs and tissues was passed in the Parliament, and in fact, has been deemed progressive enough to be used as a model by many other countries.

Turkish Transplantation Law  # 2238

On the Harvesting, Storage, Grafting and Transplantation of Organs and Tissues (June 3, 1979)

ARTICLE 3- The buying and selling of organs and tissues for a monetary sum or other gain is forbidden.

ARTICLE 4- Except for the distribution of information having scientific, statistical, and new characteristics, all advertisement in connection with the harvesting and donation of organs and tissues is forbidden.

ARTICLE 5- Harvesting organs and tissues from persons under the age of 18 or who are not of sound mind is forbidden.

ARTICLE 6- In order to be able to harvest organs and tissues from any person over the age of 18 who is of sound mind, a protocol, which beforehand the donor has approved of in writing and subscribed to verbally before at least two witnesses, should be approved by a physician.

ARTICLE 11- In connection with enforcement of this law, the case of medical death is established unanimously by a committee of 4 physicians consisting of 1 cardiologist, 1 neurologist, 1 neurosurgeon, and 1 anesthesiologist by applying the rules, methods and practices which the level of science has reached in the country.

ARTICLE 12- The physician who will perform the transplant surgery cannot be among the group which pronounced the donor as dead (Article 11),

ARTICLE 15- Those harvesting, storing, grafting and transplanting organs and tissues in a manner not conforming to this law, and those intermediating in such actions as the buying and selling of organs and tissues and those brokering same, in the case that it does not require any heavier punishment, shall be sentenced to punishment of two (2) to four (4) years, and of 50,000 to 100,000 Turkish Lira.
I am forever grateful for the contributions of the members of the Parliament; the persons in the print media, television, and radio; those in the Board of Religious Affairs; and many, many other people. They were our main supporters in getting this law enacted and they still are.

Today, the Board of Religious Affairs continues to inform people (especially during Friday prayers, which is a holy day according to Muslim belief), and via media of all the benefits of transplantation.
Following this, we had standardized "Organ Donation Cards" printed as well. Our aim with this project was to promote donation and raise people’s consciousness about transplantation. We still organize organ donation campaigns at the exits of the mosques as well.

Again, through the media, I presented information on where persons could obtain these cards, and that they should keep those cards with them (in their wallets, for example) so that physicians would know immediately, in the case of death, that their organs were available for donation.
Even after passage of the legislation and increasing the number of facilities, we still saw, a few years later, that the organs supplied via the different media were still not enough. Unfortunately, thousands of people in Turkey were dying in car accidents, and again, perfectly viable organs were being lost, and my feeling was that the deaths of these people should not be in vain, but in fact, they still were.

Therefore, in 1982, I applied again to the government, and the law on organ and tissue transplantation was amended to state that after a car accident or natural disaster, if the relatives of a deceased person could not be found, then the organs of the deceased person could be harvested without having to obtain permission.

Today, still, transplantations are performed according to this law, and any kind of activity against this law ends with severe punishment of the perpetrators. Especially, article number 15 of the Law number 2238 addresses this, as follows: "Those harvesting, storing, grafting and transplanting organs and tissues in a manner not conforming to this law, and those intermediating in such actions as the buying and selling of organs and tissues and those brokering same, in the case that it does not require any heavier punishment, shall be sentenced to punishment of two (2) to four (4) years, and of 50,000 to 100,000 Turkish Lira."

Unfortunately, thousands of people in Turkey were dying in traffic accidents, and the deaths of these people should not be in vain

LAW No. 2238 AND 2594
On the harvesting, storage, grafting and transplantation of organs and tissues

LAW No. 2594 ADDENDUM (January 21, 1982)

ARTICLE 4 - In the event of any accident or natural death, provided that the cause of death is not in any way related to the reason for organ harvesting and according to the conditions stated in Article 11, the suitable organs and tissues can be transplanted into persons whose lives depend upon this procedure without permission from the next of kin.
Facilities, Societies & Scientific Activities
As I mentioned earlier, when we began transplantation at Hacettepe University, the conditions were so limited that we could hardly establish a unit. Dialysis conditions were limited either. There were two main problems during those days:

A. There were plenty of patients but not enough facilities for both transplantation and dialysis. Many patients from different cities in Turkey were coming to our center from kilometers away for transplantation and dialysis.

B. I realized that some of our transplant recipients were very poor and could not afford the medicines required. In contrast, the wealthier kidney recipients, with enough financial means, did fine. Recognizing this inequity, I decided to establish a fund to support patients in need, and I established the Turkish Organ Transplantation and Burn Foundation on September 4, 1980.

The Foundation’s aim was, and still is,
- to support poor patients so they can afford their medication,
- to provide financial help,
- to promote organ donation,
- to organize training programs,
- to create a medium for international collaboration and scientific activities,
- and opening new dialysis and transplantation centers.
First Hemodialysis Center, Ankara, March 12, 1982

Through the Turkish Organ Transplantation and Burn Foundation, I established the first hemodialysis center in Ankara on March 12, 1982.

Turkish Organ Transplantation & Burn Foundation Hospital, Ankara, 1985

Baskent University Hospital, Ankara, March 2008
After we opened the first hemodialysis center, many patients from outside the city came, and this was very difficult for them. I therefore decided to expand facilities outside Ankara to bring this service to other big cities such as Istanbul, Adana, and Izmir.

At the same time, dialysis and transplantation centers were gradually being opened at several universities throughout Turkey. The Ministry of Health and the Ministry of Labor’s activities in this way increased.

In 1985, I opened the Turkish Organ Transplantation and Burn Foundation Hospital in Ankara. This was the first hospital in our country to specialize in transplantation. After opening this hospital, I began performing transplantations both at Hacettepe University Hospital and at this new hospital.
To develop education and healthcare in my country, I founded the **Haberal Educational Foundation** in 1986.

In 1992, the **Turkish Organ Transplantation and Burn Foundation Hospital** was certified as a training hospital by the Ministry of Health.

Realizing the fact that public and health awareness is a matter of education, in 1993 I decided to establish **Baskent University** under the aegis of the Turkish Organ Transplantation and Burn Foundation, and the Haberal Educational Foundation.
Today, including a faculty of medicine, the University comprises 11 other faculties, 7 institutes (including a transplantation and genetic sciences institute), 3 vocational schools, 1 preparatory school, 2 colleges that begin education at the nursery school level and continue through the university level, 8 hospitals (all with dialysis centers), and 6 additional independent dialysis centers. The various healthcare facilities are located in cities throughout the country and are governed from the central hospital in Ankara and liaisons office in Munich, Germany and London, UK.
In addition, Baskent University owns and operates 2 luxury hotels (1 is a spa with baths); 2 holdings; more than 20 companies; the Baskent University Transplantation and Genetic Sciences Institute Integrated Facilities, which includes a milk production factory; an experimental animal breeding center (with pigs, rats, rabbits, hamsters, and guinea pigs); a large agricultural farm; a cow farm; a quail farm; a bee farm; a textile workshop; a work clothes shop; a dialysis solution factory; a gas station; a woodworking shop; and an ironworks.
The University has a current annual operating budget of more than USD $500 million and employs more than 8000 people.
The University also operates a television channel, Channel B, Radio Baskent, and the Baskent News Agency that airs informational and educational programming. All of our educational and hospital systems have received a quality system certificate from the International Standards Organization (ISO).
In 1980, I established the Turkish Dialysis and Transplantation Society, and in 1984, I established the Middle East Dialysis and Organ Transplantation Foundation (MEDOTF) to facilitate organ sharing and procurement in the Middle East.
This was followed by establishing the Middle East Society for Organ Transplantation (MESOT) in 1987 under the leadership of our team, which has continued to carry out its mission despite the international problems in this region.

MESOT member nations have dealt with and continue to tackle a range of transplantation-related problems in countries that share similar sociocultural characteristics.
1990, the **Turkish Transplantation Society** was established.

Both societies are affiliated with the International Transplantation Society. Since the founding of MESOT, we have organized congresses every 2 years and have held these in different Middle Eastern countries. Every 2 years, since its inception, with great commitment and enthusiasm, the Turkish Transplantation Society, from members and organizers alike, has held 8 international scientific congresses to date.
Transplantation Meeting, 1983, Ankara
Turkish Transplantation Society Meeting, Award Ceremony, 2001, First Felix T Rapaport Memorial Award
Turkish Transplantation Society Meeting, 2003
Turkish Transplantation Society Meeting, Award Ceremony, 2005
Turkish Transplantation Society Meeting, Award Ceremony, and The 40th Anniversary of Liver Transplantation, 2007
Turkish Transplantation Society Meeting, Award Ceremony, and The 40th Anniversary of Liver Transplantation, 2007
Publications related to Transplantation

A. Proceedings of all MESOT and Turkish Transplantation Society meetings have been published in the journal, *Transplantation Proceedings*.

B. All transplantation activities are being published in: *Dialysis, Transplantation and Burn*, the official journal of the Turkish Transplantation Society,

C. And in *Experimental and Clinical Transplantation*, the official journal of the Middle East Society of Organ Transplantation, which is currently indexed by MEDLINE/PubMed and MEDLINE, Index Medicus, Excerpta Medica, Science Citation Index Expanded TM and Journal Citation Reports/Science Edition.
Today, in Turkey, kidney, liver, heart, kidney-pancreas, cornea, bone marrow, and a few heart and lung transplantations are performed in approximately **40 transplantation centers** (heart transplantation in 12 centers, liver transplantation in 23 centers, kidney transplantation in 38 centers, cornea transplantation in 23 centers, bone marrow transplantation in 27 centers) with enough facilities for transplantation as well as hemodialysis and peritoneal dialysis. Currently there are **727** hemodialysis centers, and **113** peritoneal dialysis centers.

A. Legislation has enabled enough facilities for organ donation and prohibited organ selling and advertisement.

B. Despite modern legislation and active educational programming, still, 75% of kidney and liver transplantation is performed from living donors (first/second degree relatives and spouses) and only 25% is from cadavers.

C. Scientific activities continue through the Turkish Transplantation Society and MESOT and indirectly, through the International Transplantation Society.

D. Transplantation activities are being published in:

**Dialysis, Transplantation and Burn**, the official journal of the Turkish Transplantation Society,

**Experimental and Clinical Transplantation**, the official journal of the Middle East Society of Organ Transplantation, which is currently indexed by MEDLINE/PubMed and MEDLINE, Index Medicus, Excerpta Medica, Science Citation Index Expanded TM and Journal Citation Reports/Science Edition.

This is the history of transplantation in Turkey, from 1975 to 2008.