

**YES,** I AM PLEASED TO SUPPORT  
LIFESAVING MEDICAL RESEARCH  
AT HADASSAH'S HOSPITALS WITH  
A GIFT OF € \_\_\_\_\_

☐ one time or ☐ recurring monthly or  
☐ recurring annually

If selecting a recurring gift, please see back for additional details\*

## PAYMENT OPTIONS:

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☐ If eligible, I would like to receive the appropriate name recognition in Jerusalem for a gift of € 1,000 or more. Please contact me at the \_\_email\_\_ phone number above to discuss further.

**MAIL TO:**

## Hadassah International

Seefeldstrasse 60  
8008 Zurich  
Switzerland

If you are not already a Hadassah member and would like to become one, please go to [www.hadassahinternational.org](http://www.hadassahinternational.org) or contact Membership at +41 44 251 33 83 or [info@hadassah.ch](mailto:info@hadassah.ch)

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Doctors at Hadassah Medical Organization (HMO) were first in the world to successfully complete a computer-assisted hip replacement. They performed Israel's first double bypass surgery, first robot-conducted surgery; and its first successful bone marrow, heart, liver, and lung transplants. HMO houses Israel's National Skin Bank and the only bone marrow registry for Arabs in the world.

Today Hadassah's two hospitals in Jerusalem, one in Ein Kerem and one on Mt. Scopus, serve Israel's largest population center and are known throughout Israel and the region for their pioneering research and healthcare expertise. HMO physicians are researchers. The researchers are physicians. They perform research in service to humanity.

# Why support stem cell research at Hadassah Medical Organization?

Hadassah had a big head start. Fifteen to twenty years. While stem cell research was heavily regulated (as late as 2006) in the United States and other countries, it was well underway in HMO's labs in Israel. Hadassah remains in the forefront of this critical research.

# Hadassah Medical Organization

# RESEARCH IN SERVICE TO HUMANITY



# The Power of Imagination: **ENVISIONING WHAT COULD BE**

The future of medicine  
begins in the laboratory.  
Our research has  
worldwide impact.

Hadassah has always been an organization of visionaries. Over 100 years ago, Hadassah was the first to bring modern medicine to the Middle East. We established Israel's first teaching hospital, its first nursing, medical and dental schools. Hadassah established the first cancer center, burn unit, trauma unit, bone marrow transplantation center, neonatal unit, and first Embryonic Stem Cell Research Center in the country.



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# The Power of Persistence: **DEDICATION TO STEM CELL RESEARCH**

Stem cells have changed the medical equation. Human embryonic stem cells (hESCs) have the potential to turn into any kind of cell in the body—brain, heart, lung, retina, bone marrow—and infinitely multiply.

A major discovery in the last decade has been the existence of adult stem cells. These adult cells live all over our bodies and their function is to repair local damage. HMO researchers are studying adult stem cells' potential to help the brain regenerate itself and thereby combat and cure diseases such as multiple sclerosis (MS) and amyotrophic lateral sclerosis (ALS).

A patient's own stem cells—harvested, enhanced and re-injected into the patient—have been used to treat cancer, ALS and other diseases. Clinical trials led by Prof. Meir Liebergall, head of orthopedics at HMO, proved that use of a patient's stem cells can cut the healing time of broken bones to one-quarter the usual recovery period.

***This is regenerative medicine. This is the promise of stem cell research.***

Imagine the impact. Treatments or cures for diseases like ALS, MS, age-related macular degeneration, Parkinson's, Alzheimer's and diabetes could be a reality in the foreseeable future. Some are just over the horizon at Hadassah Medical Organization.

## HMO Today: **STEM CELL RESEARCH HIGHLIGHTS**

### **Growing Stem Cells**

Developed key to growing the large quantity of stem cells required to treat countless patients.

### **ALS: Using a Patient's Own Stem Cells**

90% of ALS study patients showed improved respiration or motor function after treatment with stem cells from their own bone marrow.

### **MS: Preventing Nerve Degeneration**

World-first study treating MS patients with adult stem cells injected into the spinal cord revealed that disease progression stopped; most patients improved.

### **Age-Related Macular Degeneration (AMD): Stopping Deterioration of the Retina**

Halted deterioration of the retina in animal models using human embryonic stem cells. AMD patients now in groundbreaking clinical trial.

### **Repairing the Brain to Protect Against Alzheimer's**

Demonstrated in mice that transplanted stem cells could generate new neurons and improve memory.

### **Advancing Treatment for Diabetes**

Developed an oral insulin pill that could revolutionize diabetes treatment.

AGE-RELATED  
MACULAR  
DEGENERATION

DIABETES

ALS

ALZHEIMER'S

MS

## **A LOOK INTO THE FUTURE**

### **Regenerating Heart Cells**

Proved that heart cells could regenerate following a heart attack with implanted stem cells.

### **Personalized Treatments for Cancer**

Created unique immunotherapy treatments for stage III and IV melanoma patients; individualized vaccines use tumor cells.

### **Dramatic Progress in Liver Regeneration**

Testing a drug to treat non-alcoholic fatty liver disease, which can lead to cirrhosis and liver cancer. FDA-approved clinical trials underway in over 20 medical centers in the US, Israel and Australia.

### **New Drug Therapies**

- FDA-approved medicine for ADHD now in Phase III clinical trials.
- Travelon, a diarrhea medication with no side effects, now used in 40 major US hospitals.
- New medication for Crohn's disease in development.