
شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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# التوثيق الالكتروني والميكروفيلم

# بعض الوثائق الاصلية تالفة

# بالرسالة صفحات
# لم ترد بالاصل

# New applications of haematopoietic stem cell transplantation for healing different tissues and organs

ESSAY

Submitted for partial fulfillment of Master Degree
in Clinical and Chemical Pathology

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# ABSTRACT

Several recent reports have highlighted the broad developmenta potential of bone marrow-derived stem cells and the term "stem cel plasticity" has been coined. Haematopoietic stem cells (HSCs) have been reported to produce not only all of the blood lineages, but also skeletal muscle, neurons, cardiac muscle, pulmonary epithelium, and liver epithelium. The transdifferentiation of bone marrow derived cells into hepatic cells was first described in the rat, Followed by reports for the mouse and also the human they were able to demonstrate that bone marrow transplantation (BMT) could substitute for hepatocyte transplantation and correct the liver disease in this model It was furthermore demonstrated that prospectively isolated HSCs can transdifferentiate into hepatocytes and this suggested that the HSCs may indeed be plastic and be capable of producing both blood and hepatocytes)



## Key words:

**bone marrow transplantation**
**stem cell**
**chemotherapy**
**peripheral blood**

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|---|---|
| **ABMT** | Autologous bone marrow transplantation. |
| **AHSCT** | Autologous haematopoietic stem cells transplantation. |
| **ALL** | Acute Lymphoblastic Leukemia. |
| **AML** | Acute Myeloid Leukemia. |
| **BMSCs.** | Bone marrow stem cells transplantation. |
| **BMT** | Bone marrow transplantation. |
| **CREP** | cAMP response element-binding protein. |
| **CLL** | Chronic Lymphocytic Leukemia. |
| **CML** | Chronic Myelogenous Leukemia. |
| **CFC** | Colony forming cells. |
| **CSFs** | Colony stimulating factors. |
| **CRE** | Cre recombinase |
| **DMSO** | Dimethyl sulfoxide. |
| **DMD** | Duchenne muscular dystrophy. |
| **EAE** | Experimental allergic encephalomyelitis. |
| **FISH** | Fluorescence in situ hybridization. |
| **FACS** | Fluorescence-activated cell sorting. |
| **FAH** | Fumarylacetoacetate hydrolase. |
| **GLUT2** | Glucose transporter 2. |