Contributions of Muslim Scientists to Medicine and Related Sciences

Abdi O. Shuriye
Raihan Othman

IIUM Press
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
Contributions of Muslim Scientists to Medicine and Related Sciences

Editors
Abdi O. Shuriye
Raihan Othman

IIUM Press
Contents

Title
preface v
Acknowledgment vi
Lists of Contributors vii
Introduction 1
Chapter 1 Al-Majusi Contribution in the Understanding of the Cardiovascular System and Blood Circulation 3
Chapter 2 Al-Majusi: The Pioneer in Obstetrics 7
Chapter 3 Al-Razi Works and Contributions in Neurological Sciences 12
Chapter 4 Ar-Razi on Gout 19
Chapter 5 Ali Bin Isa Al-Kahhal: Pioneer in Ophthalmology 25
Chapter 6 Al-Majusi’s Treatment of Physical Diseases Using Drug Therapy and Surgical Manipulation 30
Chapter 7 Al-Razi’s Understanding and Curing of Smallpox and Measles 35
Chapter 8 Al-Razi’s Contribution to the Study of Nexus between Human Mind and Body 39
Chapter 9 Abu Zayd Ahmed Ibn Sahl Al-Balkhi on Medical Psychology 45
Chapter 10 Contributions of Ashraf Ali Thanwi to Mental Disease Treatment 49
Chapter 11 Ibn Zuhr on Diseases and Treatments 54
Chapter 12 Ibn Al-Jazzar on Fever 59
Chapter 13 Ibn Al-Khatib and his Theory of Contagion 64
Chapter 14 Ibn Al-Nafis Contribution in Urology Progress Practices 67
Chapter 15 Ibn Al-Quff on Preventive Medicine 72
Chapter 16 Ibn Sina on Aromatherapy 76
Chapter 17 Studies in Gynaecology in Zad Al-Musafir Wa Qut Al-Hadir of Abu Jaafar Ibn Al-Jazzar 81
Chapter 18 Contributions of Ibn-Sina in Pharmaceutical Sciences 88
Chapter 19 The Contribution of Ibn Al-Baitar in Medicine 94
Chapter 20 The Contribution of Saghir Akhtar in Pharmaceutical Science 99
Chapter 21 The Glorious Contribution of Ibn Al-Quff on Cardiology and Embryology as Well as Other Surgical Matters 104
Chapter 22 Success Journey of Mehmet Oz in Cardiothoracic Surgery 109
Chapter 23 Abu Al-Qasim Al-Zahrawi’s Contribution to Neurosurgery 115
Chapter 24 Al-Zahrawi Method on Inflammatory Swellings and Tumours Surgery 120
Chapter 25 Oculist’s Contributions to Cataract Operation 126
Chapter 26 Al-Zahrawi Contribution to Medical Instruments 131
Chapter 27 Al-Zahrawi’s Explanation on Bone Fractures and Its Surgical and Non-Surgical Treatments 137
Chapter 28 Inhalation and Oral Anesthetics: Views of Selected Muslim Physicians 144
26.1 INTRODUCTION

The objective of this chapter is to illustrate the Muslim heritage in medical aspect especially and its contribution to medical instruments. The methodology that applies for this chapter is data compilation from various academic sources. The significance of this chapter is to acknowledge the contribution of Al Zahrawi in medicine and instrumentation used which influent today medicine.

26.2 THE MEDICAL ASPECT BACKGROUND IN ISLAMIC CIVILIZATION

Initially, in the early days of Islam, there were some arguments to source from which medical technique among Greek, Chinese and Indian. After intense arguments, the Islamic physicians were given free option to study and adopt any techniques they wished with Islamic faith as filtration. The major contribution of the Islamic Age to the history of medicine was the establishment of hospitals, paid for by the endowment donations known as Zakat tax (Shuttleworth M., 2010). Islamic hospital began in 8th century Baghdad they looked after lepers, the invalid and the destitute. The first proper hospital as shown in Figure 1 was built in Cairo between 872 and 874 CE. The name of this free of charge hospital is Ahmad ibn Tulun. It comes with two bath houses, one for men and one for women, a rich library, and a section for the insane, medical services includes bloodletting, bone setting and cauterization. It has an incredible management where patients could deposit their street clothes and their valuable belonging for safe keeping. Then the hospital will provide ward clothes and bring them to their beds (Al-Hassani, Salim T.S., 2007, p.154).

![Figure 1. The First organized hospital, Ibn Tulun Mosque, Cairo, Egypt. This figure is adopted from: (Al-Hassani, Salim T.S., 2007, p.154)](image-url)

These hospitals, as well as providing care to the sick on site, sent physicians and midwives into rural areas, famine community. It also facilitated place for physicians and