

# Pharmacy and Medicine in Ancient Egypt

Proceedings of the conference held in  
Barcelona (2018)

Edited by

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Cover: Sekhmet statues set up at Karnak during the reign of Amenhotep III (Dynasty 18), possibly as the focus of worship to terminate or avert plagues. Temple of Mut, Karnak. (Photograph courtesy of C. Price, The University of Manchester, December 2017).

Drawing of surgical instruments adapted from the Kom Ombo surgical instrument scene.

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# Preface and Acknowledgement

This monograph comprises the Proceedings of the Third International Conference on Pharmacy and Medicine in Ancient Egypt - EGYPHARMED 2018.

[www.egypharmed2018.com](http://www.egypharmed2018.com)



Following a first conference in Cairo (Egypt) in 2007 and a second in Manchester (UK) in 2008, on the 25th and 26th of October 2018, the Third International Conference on Pharmacy and Medicine in Ancient Egypt was held at Alimara Hotel in Barcelona (Catalonia).

## The Organizing Committee

The team was formed by Dr. Rosa Dinarès Solà (Radiologist and Egyptologist), Dr. Mikel Fernandez Georges (Biologist, Egyptologist and Linguist) and Dr. Maria Rosa Guasch-Jané (Pharmacist and Egyptologist).

## The Scientific Committee

Honorary President: Prof. Rosalie David, Emeritus Professor of Egyptology at The University of Manchester (UK).

President: Dr. Miguel Sánchez, Chief of Pathology and Medical Director of the Leslie Simon Breast Care and Cytodiagnosis Center at Englewood Hospital and Medical Center (USA).

Vice-president: Prof. Salima Ikram, Distinguished Professor of Egyptology at the American University in Cairo (Egypt) and Invited Professor at Yale University (USA).

## Advisors:

Professor Eva-Maria Geigl, Co-director of the Epigenome and Paleogenome laboratory of the Institut Jacques Monod, University Paris-Diderot (Paris 7)/CNRS in Paris (France).

Dr. Albert Isidro, Consultant Orthopedist from Hospital Universitari Sagrat Cor in Barcelona and Aggregate Professor in Medicine at Universitat de Barcelona.

Dr. Jesús Herrerín López, PhD in Biological Sciences. Associate Professor of Biology at the Autonomous University of Madrid (Spain).

Professor Frank Rühli, Professor of Medicine at the University of Zurich (Switzerland) and Director of the Swiss Mummy Project.

Professor Lisa Sabbahy, Professor of Egyptology at the American University in Cairo (Egypt) and Program director of the MA in Egyptology and Coptology at AUC.

Dr. Sahar Saleem, Professor of Radiology at Kasr Al-Ainy, Faculty of Medicine of the Cairo University (Egypt) and Leading member of the Egyptian Mummy Project (Egypt).

The EGYPHARMED 2018 conference included presentations on new research and advances in the topics covered in the first two conferences.

The meeting displayed the most recent pharmaceutical and medical studies on human remains and organic and plant material from ancient Egypt, together with discussions on textual and iconographical evidence related to this subject in order to evaluate the knowledge and advances we have made on pharmacy, veterinary and human medicine in Ancient Egypt.

The Conference programme combined plenary sessions, oral communications and posters, and discussions which provided a forum to establish interdisciplinary collaborations between researchers and research groups that propose breakthrough studies on pharmacy, veterinary science and medicine in Ancient Egypt.

Participation in the conferences and posters ranged from distinguished researchers and professors from academic institutions, museums and universities, to postgraduates and doctoral students at the beginning of their careers.

The inaugural lecture was given by Professor Rosalie David, to whom we convey special thanks for her collaboration and participation.

The keynote lectures were by Professors Rosalie David (University of Manchester, UK), Salima Ikram (American University in Cairo, Egypt), Eva-Maria Geigl (Institut Jacques Monod in Paris, France), Frank Rühli (University of Zürich, Switzerland) and Sahar Saleem (Cairo University, Egypt).

Furthermore, special communications were presented by Professor Lisa Sabbahy (American University in Cairo, Egypt), Dr. Albert Isidro (University Hospital Sagrat Cor, Catalonia), Dr. Jesús Herrero (Autonomous University of Madrid, Spain) and Dr. Rosa Dinarès Solà (General University Hospital of Catalonia).

The lectures and posters covered a wide range of topics and visions within this field of medicine.

We would specially like to thank the support and help of the following institutions:

- Associació Espanyola de Farmacèutics de la Indústria (AEFI)- secció catalana
- Col·legi de Farmacèutics de Barcelona
- Col·legi de Metges de Barcelona
- Institut Català d'Arqueologia Clàssica (ICAC)
- Museu Egipci de Barcelona
- Institut d'Estudis del Pròxim Orient Antic, Universitat Autònoma de Barcelona

Finally, we would like to especially thank Mr. Jordi Ruiz Camargo for his generous collaboration and to both Patricia Ruiz Villar and Patricia Rodríguez Corbera for the smooth running of the sessions during the congress.

Participants could also enjoy the Gala Dinner at Senyor Parellada restaurant and visits to the medieval hospital of La Santa Creu and Roman Barcelona. The latter was courtesy of Dr. Josep Maria Palet, director of the Catalan Institute of Classical Archaeology (ICAC).

With regard to the Proceedings, we would like to express our gratitude to the publisher, Archaeopress, and the financial support from Fundació Uriach 1838, in particular Mr. Javier Uriach Torelló, and Col·legi de Metges de Barcelona (COMB) for the main funding of this edition, as well as the Catalan Institute of Classical Archaeology (ICAC).

Barcelona, April 2020

Rosa Dinarès Solà, Mikel Fernandez Georges and Maria Rosa Guasch-Jané

# Conference Programme

## 25 OCTOBER 2018 (Thursday)

9h-9:30h: Registration

9:30h-10h: Opening

Session chair: Professor Lisa Sabbahy, American University in Cairo (Egypt)

### **1st session: Medicine in Ancient Egypt**

10-10:45h Keynote speaker: Professor Rosalie David, University of Manchester (UK)

*'Epidemics and their aftermath in Ancient Egypt'*

10:45h-11h: Coffee break

11h-13:30h: Communications

13:30-15h: Lunch

Session chair: Dr. Maria Rosa Guasch-Jané, director of the Wine of Ancient Egypt/ EGYWINE Project (Catalonia)

15-15:30h Keynote speaker: Professor Salima Ikram, American University in Cairo (Egypt)

*'Images and analyses: Recent advances in mummy studies'*

15:30-16h Special communication: Professor Lisa Sabbahy, American University in Cairo (Egypt)

*'An update on our understanding of disease in Ancient Egypt'*

Session chair: Professor Salima Ikram, American University in Cairo (Egypt)

### **2nd Session: Pharmacy and Vet in Ancient Egypt**

16h-17:30h: Communications

17:30h-18h Keynote speaker: Professor Eva-Maria Geigl, Institut Jacques Monod, Paris (France)

*'An Egyptian cat tale told by ancient DNA?'*

## 26 OCTOBER 2018 (Friday)

Session chair: Professor Frank Rühli, University of Zürich (Switzerland)

9-9:45h Keynote speaker: Sahar Saleem, Cairo University (Egypt)

*'Ancient Egyptian medicine and health in the eyes of modern science'*

### **3rd Session: Palaeopathological diagnosis and New techniques applied to the study of human remains**

9:45h-10:45h: Communications

10:45h-11h: Coffee break

Session chair: Professor Rosalie David, University of Manchester (UK)

11-11:30h Keynote speaker: Frank Rühli, University of Zürich (Switzerland)

*'Biomedical research on ancient Egyptian mummies: General perspectives and latest findings in the Valley of the Kings (KV 31, KV 40, KV 64) and Sheikh Abd el-Qurna (TT95)'*

11:30h-13:30h: Communications

13:30-15h: Lunch

Session chair: Dr. Mikel Fernández, University of Barcelona (Catalonia)

15:00-15:30h Special communication: Dr. Albert Isidro, University Hospital Sagrat Cor (Catalonia)

*'Bone cancer in Ancient Egypt. State of Art'*

#### **4th session: Mummification and Variations**

15:30h-17:00h: Communications

17-17:30h Special communication: Dr. Jesús Herrerín, Autonomous University of Madrid (Spain)

*'New light on the mummification process: attempts to improve the body for the afterlife'*

17:30-18h Special communication: Dr. Rosa Dinarès Solà, University Hospital General of Catalonia (Catalonia)

*'Ebers and Edwin Smith papyri compared to paleopathological data found in bones and mummified remains'*

18h-18:15h: Conclusions

Posters session: 1h





# Third International Conference on Pharmacy and Medicine in Ancient Egypt (October 25-26, 2018)

## Introduction

The main aims of this series of conferences are: first, to evaluate the knowledge and advances we have made relating to ancient Egyptian pharmacy, and veterinary and human medicine; and secondly, to provide an opportunity for researchers and research groups to establish interdisciplinary collaborations. The first conference was held at the National Research Centre, Cairo (March 19-22, 2007) and the second in Manchester (September 1-2, 2008); the meeting in Aswan, planned for 2012, did not materialise, and so the third conference was arranged for Barcelona.

The Barcelona conference was hosted by the Institut d'Estudis del Pròxim Orient Antic, Universitat Autònoma de Barcelona. It included some of the most recent pharmaceutical and medical studies on human remains and organic and plant materials from ancient Egypt, and focused on related textual and iconographic evidence, and the development and application of various biomedical/scientific techniques to identify evidence in ancient organic and inorganic remains.

Thirty papers (including three posters) were presented by authors from nine countries. The *Keynote Lectures* included: 'Epidemics and their aftermath in Ancient Egypt' (Professor Rosalie David, University of Manchester, UK); 'Images and analyses: recent advances in mummy studies' (Professor Salima Ikram, American University in Cairo, Egypt); 'An Egyptian cat tale told by ancient DNA?' (Professor Eva-Maria Geigl, Institut Jacques Monod, Paris, France); 'Ancient Egyptian medicine and health in the eyes of modern science' (Professor Sahar Saleem, Cairo University, Egypt); and 'Biomedical research on ancient Egyptian mummies: general perspectives and latest findings in the Valley of the Kings (KV 31, KV 40, KV64) and Sheikh abd el-Qurna' (Professor Frank Rühli, University of Zurich, Switzerland).

There were also four *Special Communications*: 'An update on our understanding of disease in ancient Egypt' (Professor Lisa Sabbahy, American University in Cairo, Egypt); 'Bone cancer in ancient Egypt: state of the art' (Dr Albert Isidro, University Hospital Cor, Catalonia); 'New light on the mummification process: attempts to improve the body for the afterlife' (Dr Jesús Herrero, Autonomous University of Madrid, Spain); and 'Ebers and Edwin Smith Papyri compared to palaeopathological data found in bones and mummified remains' (Dr. Rosa Dinarès Solà, University Hospital General of Catalonia, Catalonia).

The conference papers discussed a wide range of material. This included: assessment of the current state of the subject area, including ethical approaches to human remains; analyses of the prescriptions, recipes and terms in the medical papyri; human medicine (pharaonic to Coptic periods, and comparisons with systems in neighbouring lands); medical personnel; veterinary medicine; and research methodology (including work in the field, experimental mummification, and some new approaches to medical imaging, palaeopathology, and aDNA identification).

Over the past five decades, a variety of conferences have addressed issues related to textual, archaeological and palaeopathological studies on mummies from different countries. Also, regular conferences have covered many aspects of Egyptology. Although papers on ancient Egyptian medicine and pharmacy have sometimes been presented at these events, this subject area has never been their main focus. This current series of conferences is unique in that it provides a specific forum where medicine and pharmacy can be discussed within the particular context of ancient Egypt.

Over the past century, it has been the custom to disseminate research in this field through academic journals (in numerous languages) which are dedicated to Egyptology, medicine, forensics, various sciences, technology, anthropology, history, archaeology, and museology. Given this wide range of publication, both the academic researcher and the general reader may sometimes find difficulty in accessing this material.

However, for this conference series, the papers are readily available: presented together in two monographs (in this publication, and in J. Cockitt and R. David (eds.) 2010. *Pharmacy and Medicine in Ancient Egypt: Proceedings of the conferences held in Cairo (2007) and Manchester (2008)*. Oxford: Archaeopress). Now this pattern has been established, we hope that similar publications will continue to be a key feature of future meetings.

International academic interaction and co-operation are important in our subject area. Programmes arranged around venues in different countries also provide excellent opportunities for conference participants to visit local places of special interest. Tours in Barcelona included the Egyptian Museum, the Medieval Hospital of Santa Creu, and local Roman sites. The Gala Dinner (at the Senyor Parellada Restaurant) was another highlight of our time in this beautiful city.

The continuation of these conferences is vitally important for the continuation and development of this subject. Now well-established, it is hoped that similar programmes will continue on a regular basis in the future.

Rosalie David  
The University of Manchester (UK)  
Honorary President of the Scientific Committee  
September 2019

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*and*

