# Manual of Scientific Research

First Edition 2015



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## Manual of Scientific Research

**First Edition** 

2015

**Prof. Nasser Ghaly Yousif** 

Clinical Oncologist/Hematologist Principal investigator

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**Preface** 

The lack of sufficient reference materials and uniformity in scientific research

has always been a problem in study that are engaged in training postgraduates

and senior doctorates. Hence, I hope that this book would be immensely useful

in solving this existing problem at significant level. The book is intended for use

by researchers during their training, in their work places, writing proposal,

thesis, publication and grants. There are eighteen chapters each beginning with

specific learning objectives in which succeeding by a background of the topic in

discussion. There are study questions at the end of each chapter for the reader

to evaluate his understanding of the contents. In addition, important terms are

defined in the glossary section at the end of the text.

Lastly, I plan to continually update this book based on emerging trends in

scientific research. If there are any new or interesting content that you wish to

see in future editions, please drop me a note, and I will try my best to

accommodate them. Comments, criticisms, or corrections to any of the existing

content will also be gratefully appreciated.

Prof. Nasser Ghaly Yousif

Medical College

Muthanna University

Email: Yousif ghaly@yahoo.com

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Besides my research advisor, I would like to thank my clinical fellowship supervisor at oncology department/ University of Colorado at Denver **Prof. Ana Oton**, for their insightful comments and encouragement, but also for the hard question which incented me to widen my research from various perspectives. I have been extremely lucky to have a supervisor who cared so much about my work, and who responded to my questions and queries so promptly.



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Thanks to **Margaret Aranda** for her help in providing us with a working toolset and knowledge to convert from restructured text format to MS Word for the Apress editing process. The open source book was written completely in restructured text, and converted to .doc format for the Apress drafts and editing procedures. James offered great insight on how he used this process with The Pylons Book, and he also provided us with a conversion utility that was used for his book.

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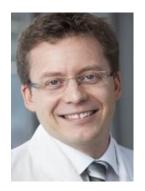
**Dr. Musaed Al-dahhan**, Dean of Muthanna Medical college, a special thanks for his guidance, great support and kind advice throught my preparation of this book. It's a real privilege and an honour for me to share his extra ordinary human qualities.



Jeffrey Beall, associate professor librarian at Auraria Library, University of Colorado Denver, in Denver, Colorado. In addition to my own research and writing, helped me learn a lot about scholarly communication, article processing charges, misleading metrics, open-access policy, open-access sanctions, plagiarism, platinum open access, pseudo-science, scholarly Open-access publishers, questionable, scholarly open-access standalone journals.



**Charles A. Dinarello**, professor of medicine currently at the University of Colorado at Denver. He is an expert on inflammatory cytokines, specifically Interleukin 1. Dinarello is considered one of the founding fathers of cytokines having purified and cloned interleukin-1. I work with him for more than 1- year regarding the pathway of IL-37.



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**Professor Varella Garcia**, has been in the Medical Oncology Division since 1993 and has research interests in the development and validation of biomarkers for early detection and monitoring of recurrence in human neoplasias and patient stratification for therapy. focuses on translational cancer research using cytogenetics technology. Her a dvices are very important to established this work.

To my colleagues and friends in clinical oncology/hematology fellowship and research lab inflammation cardiology -Department of Surgery-University of Colorado Denver, beside Bone marrow /stem cells transpalnt center in Ulm University/Germany, I thank them for their companionship and providing so pleasurable and friendly working atmosphire, and for all the fun we have had in the last four years. Last but not the least, I would like to thank my family.

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